

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An implantable dual-chamber defibrillation or cardioversion device, comprising:
at least first and second input leads for sensing atrial and ventricular electrical signals from a heart;
a therapy circuit for delivering electrical energy through one or more of the leads; and
a monitoring circuit for monitoring the electrical signals through one or more of the leads, the monitoring circuit comprising:
a programmable memory device for storing one or more cross-chamber blanking settings and at least one preset refractory period value, wherein each of the cross chamber blanking settings includes a time value for a cross chamber blanking period and a corresponding noise window based on a difference between the preset refractory period and the time value used for the cross-chamber blanking period; and
circuitry for blanking sensing of atrial electrical signals in the monitoring circuitry for a period of time following sensing a last ventricle beat of the heart and based on at least one of the cross-chamber blanking settings.
2. (Currently Amended) A dual-chamber defibrillation or cardioversion system comprising:
a dual-chamber defibrillator or cardioverter including first and second leads for sensing signals from respective first and second chambers of a heart and a monitoring circuit for monitoring signals sensed at the first and second leads, the monitoring circuit having:
a memory circuit for storing one or more cross-chamber-blanking settings and at least one preset refractory period value, wherein each of the cross chamber blanking settings includes a time value for a cross chamber blanking period and a corresponding noise window based

on a difference between the preset refractory period and the time value used for the cross-chamber blanking period; and
a cross-chamber-blanking module for disabling sensing signals at either the first or second lead for a preset time period following sensing a last ventricle beat of the heart and based on at least one of the cross-chamber-blanking settings; and
a device programmer operable to communicate one or more of the cross-chamber-blanking settings to the defibrillator or cardioverter after implantation of the defibrillator or cardioverter.

3-5. (Canceled)

6. (Currently Amended) The device of claim 1, wherein the circuitry for blanking is operable to compute a noise window width based on a refractory period and one of the cross-chamber-blanking settings having a value of 85 milliseconds.

7. (Currently Amended) The system of claim 2, wherein the cross-chamber-blanking module is operable to compute a noise window width based on at least the one of the cross-chamber-blanking settings having a value of 85 milliseconds.

8. (Currently Amended) An implantable dual-chamber cardioversion or defibrillation device, comprising:
first and second leads for sensing signals from respective first and second chambers of a heart;
a monitoring module for monitoring signals sensed at the first and second leads, the monitoring module including:
a memory module for storing one or more programmable cross-chamber-blanking settings; and
a cross-chamber-blanking module responsive to at least one of the one or more programmable cross-chamber-blanking settings for disabling sensing signals at

the first or second lead or for ignoring signals at the first or second lead for a time period following sensing a last ventricle beat of the heart and based on at least one of the stored cross-chamber blanking settings, the one or more programmable cross-chamber blanking setting having a preset time period including the sum of a time value for a cross chamber blanking period and a corresponding noise window based on a difference between a preset refractory period and the time value used for the at least one programmable cross-chamber blanking period; a wireless transceiver coupled to the memory module for wirelessly receiving at least one cross-chamber blanking settings after implantation of the device and for programming the memory module based on a given one of the at least one received cross-chamber blanking setting; and a therapy module, responsive to the monitoring module, for delivering a therapeutic agent to the heart.

9. (Previously Presented) The device of claim 8, wherein the therapeutic agent is a non-electrical agent.
10. (Currently Amended) The device of claim 8, wherein the cross-chamber-blanking module is operable to compute a noise window duration based at least on the one cross-chamber blanking setting having a value of 65 milliseconds.
11. (Currently Amended) A dual-chamber defibrillation or cardioversion system comprising: a dual-chamber defibrillator including first and second leads for receiving signals from respective first and second chambers of a heart and a monitoring circuit for monitoring signals sensed at the first and second leads, the monitoring circuit having:
 - a memory circuit for storing one or more cross-chamber-blanking settings and at least one preset refractory period value, wherein each of the cross chamber blanking settings includes a time value for a cross chamber blanking period and a corresponding noise window based

on a difference between the preset refractory period and the time value used for the cross-chamber blanking period; and

a cross-chamber-blanking module for disabling sensing signals at either the first or second lead for a preset time period following sensing a last ventricle beat of the heart and based on at least one of the cross-chamber-blanking settings; and

a programmer for changing one or more of the cross-chamber-blanking settings after implantation of the dual-chamber defibrillator.

12. (Previously Presented) The system of claim 11, wherein the programmer comprises means for changing one or more of the cross-chamber-blanking settings after implantation of the defibrillator or cardioverter.

13. (Previously Presented) The system of claim 11, wherein each of the first and second leads comprise means for receiving signals from first and second chambers of the heart.

14. (Previously Presented) The system of claim 11, wherein the memory circuit comprises means for storing one or more cross-chamber-blanking settings.

15. (Previously Presented) The system of claim 11, wherein the cross-chamber-blanking module comprises means for disabling sensing signals at either the first or second lead for a preset time period based on at least one of the cross-chamber-blanking settings.

16. (Currently Amended) The system of claim 11, wherein the cross-chamber-blanking module includes means for computing a noise window width based on at least the one of the cross-chamber-blanking settings having a value of 85 milliseconds.

17. (Currently Amended) A dual-chamber defibrillation or cardioversion system comprising: dual-chamber cardioversion circuitry including first and second leads for sensing signals from respective first and second chambers of a heart and a monitoring circuit for

monitoring signals sensed at the first and second leads, the monitoring circuit having:

a memory circuit for storing one or more cross-chamber-blanking settings and at least one preset refractory period value, wherein each of the cross chamber blanking settings includes a time value for a cross chamber blanking period and a corresponding noise window based on a difference between the preset refractory period and the time value used for the cross-chamber blanking period; and

a cross-chamber-blanking module for disabling sensing signals at either the first or second lead for a preset time period following sensing a ventricle beat of the heart and based on at least one of the cross-chamber-blanking settings; and

a programmer for changing one or more of the cross-chamber-blanking settings after implantation of the cardioversion circuitry.

18. (Previously Presented) The system of claim 17, wherein the cardioversion circuitry is operable to respond to the monitoring circuit for initiating a therapeutic action.
19. (Previously Presented) The system of claim 17, wherein the cross-chamber-blanking module is operable to disable sensing signals at either the first or second lead for a preset time period based on at least one of the cross-chamber-blanking settings.
20. (Currently Amended) The system of claim 17, wherein the cross-chamber-blanking module is operable to compute a noise window width based on a refractory period and one of the cross-chamber-blanking settings having a value of 85 milliseconds.
21. (Currently Amended) The system of claim 17, wherein the cross-chamber-blanking module is operable to compute a noise window width based on at least the one of the cross-chamber-blanking settings having a value of 45 milliseconds.

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22. (Currently Amended) A dual-chamber defibrillation or cardioversion system comprising: dual-chamber cardioversion circuitry including first and second leads for sensing signals from respective first and second chambers of a heart; and a cross-chamber-blanking module for disabling sensing signals at either the first or second lead for a preset time period following sensing a last ventricle beat of the heart and based on at least one programmable cross-chamber-blanking setting, the at least one programmable cross-chamber blanking setting having a preset time period including the sum of a time value for a cross chamber blanking period and a corresponding noise window based on a difference between a preset refractory period and the time value used for the at least one programmable cross-chamber blanking period.
23. (Previously Presented) The system of claim 22, further comprising: a programmer for changing the one cross-chamber-blanking setting after implantation of the cardioversion circuitry.
24. (New) The device of claim 1, wherein the preset refractory period value is approximately 86 milliseconds.